

इंटरनेट

मानक

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Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

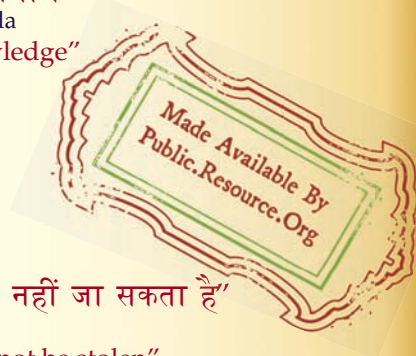
IS 11568 (1986): Forceps, Bone Holding, Semb's Pattern [MHD
2: Orthopaedic Instruments, Implants and Accessories]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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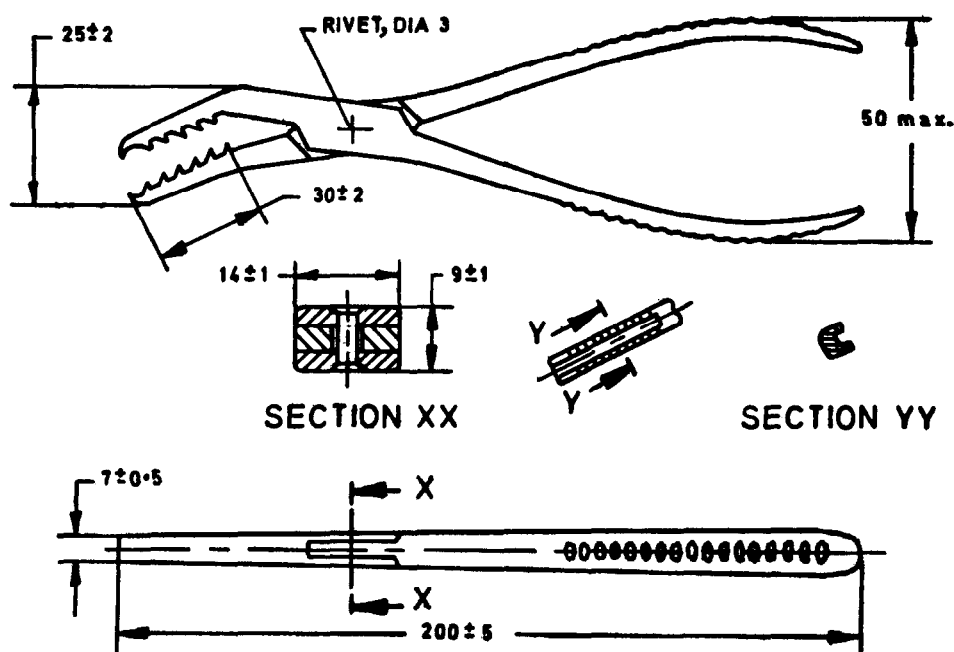


Indian Standard

SPECIFICATION FOR FORCEPS, BONE HOLDING, SEMB'S PATTERN

1. Scope — Prescribes dimensional and other requirements for Semb's pattern bone holding forceps.

2. Shape and Dimensions — As shown in Fig. 1.



All dimensions in millimetres.

FIG. 1 FORCEPS, BONE HOLDING, SEMB'S PATTERN

3. Material

3.1 Arms — Stainless steel conforming to designation 30Cr13 or 40Cr13 of IS : 6603-1972 'Specification for stainless steel bars and flats'.

3.2 Screws — Stainless steel conforming to designation 20Cr13 or 30Cr13 of IS : 6603-1972.

4. Workmanship

4.1 The teeth of the jaws shall be well formed and clean.

4.2 The two arms shall move freely and smoothly at the joint without undue play.

5. Surface Condition — All surfaces shall be free from pores, crevices and grinding marks. The forceps shall be supplied free from residual scale, acid, grease and grinding and polishing materials. Compliance with these requirements shall be checked by inspection using normal vision (corrected, if necessary).

5.1 Surface Finish — The surface finish shall be one of or a combination of the following:

- a) Mirror polished;
- b) Reflection-reducing, for example, satin finish, matt black finish; and
- c) An applied surface coating, for example, for insulation purposes.

Note — The satin finish should be effected by an appropriate procedure, such as grinding, brushing, electropolishing and, in addition, satin finishing (glass beading or satin brushing). The finish should be uniform and smooth and it should reduce glare. Instrument of mirror finish should be adequately ground to remove all surface imperfections and polished to remove grinding marks, resulting in a mirror finish. The mirror finish should be effected by an appropriate procedure such as polishing, brushing, electropolishing and mirror buffing.

5.2 Passivation and Final Treatment — The forceps shall be treated by a suitable passivation process.

Note 1 — Examples of methods of passivation are by electropolishing or by treating with 10 (v/v) nitric acid solution for not less than 30 min at a temperature of not less than 10°C and not exceeding 60°C. The forceps should then be rinsed in water and dried in hot air.

Note 2 — If the joints are lubricated, the lubricant should be non-corrosive and suitable for medical application according to the Indian Pharmacopoeia.

6. Heat Treatment and Hardness — The forceps shall be heat treated to give a hardness of 380 to 420 HV when tested in accordance with IS : 1501-1968 'Method for Vickers hardness test for steel (first revision)'.

7. Tests

7.1 Rigidity Test — Hold a piece of hardwood of minimum thickness of 12 mm in the jaws of the forceps. Apply a comprehensive force of 1 000 N (100 kgf) to the handles of the forceps at the place of maximum convexity. Allow the force to act for two minutes. On completion of the test the forceps shall show no sign of damage or permanent set.

7.2 Corrosion Resistance Test — Test the forceps in accordance with IS : 7531-1975 'Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments'. The forceps shall show no sign of corrosion after the test.

8. Marking — The forceps shall be marked with the following:

- a) Manufacturer's name, initials or recognized trade-mark; and
- b) Country of origin.

8.1 ISI Certification Mark — Details available with the Indian Standards Institution.

9. Packing — As agreed to between the purchaser and the supplier.

10. Sampling — Sampling procedure and acceptance criteria for the instruments shall be as agreed to between the purchaser and the supplier. However, a recommended scheme for the same is given in Appendix A.

A P P E N D I X A

(Clause 10)

SAMPLING AND CRITERIA FOR CONFORMITY FOR FORCEPS, BONE HOLDING, SEMB'S PATTERN

A-1. Lot — All the forceps of the same type shape and dimension, not exceeding 50, shall be grouped together to form a lot. Each lot shall be tested for the requirements of this specification.

A-2. All the forceps in the lot shall be individually tested for the requirements of shape, dimensions for workmanship and finish. Any forceps failing in one or more requirements shall be rejected.

A-3. Manufacturer shall certify that the material of arms and screws as prescribed in 3.

A-4. From each lot, one sample forceps shall be drawn for conducting each of the tests on hardness, rigidity and corrosion resistance test. The samples shall pass the respective requirements if the lot is to be accepted under this clause.

E X P L A N A T O R Y N O T E

Assistance has been derived from DIN 13187-1983 Medical Instruments, bone holding forceps, Type Semb, issued by the Deutsches Institut für Normung, West Germany.